

Serial No.: 09/695,043
Inventor/s: NAKAMURA
Title: DECOMPOSITION APPARATUS OF ORGANIC
COMPOUND, DECOMPOSITION METHOD THEREOF,
EXCIMER UV LAMP AND EXCIMER EMISSION APPARATUS

C#/M#: 1767-72

Atty: Michelle N. Lester

Date: Jun. 3, 03

XX Amendment and Response to Restriction
Requirement

☒ Address Indication Form

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\$0.00 Total Fee Enclosed

Other: Withdrawal of Erroneous Abandonment Notice or in
the Alternative Petition to Revive w/attachments



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

NAKAMURA

Atty. Ref.: 1767-72

Serial No. 09/695,043

Group: 1741

Filed: October 25, 2000

Examiner: Mayekar, Koshor

For: DECOMPOSITION APPARATUS OF ORGANIC COMPOUND,
DECOMPOSITION METHOD THEREOF, EXCIMER UV LAMP AND EXCIMER
EMISSION APPARATUS

* * * * *

June 3, 2003

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

**WITHDRAWAL OF ERRONEOUS ABANDONMENT NOTICE OR IN THE ALTERNATIVE
PETITION TO REVIVE**

It is understood that the subject application has been abandoned because applicant allegedly failed to file a response to the Office Action mailed November 15, 2002.

Withdrawal of the Abandonment of this application is respectfully requested.

This application was filed on October 25, 2000 as a division of parent Application No. 09/132,215, filed August 11, 1998. On November 15, 2002, a Restriction Requirement was issued in connection with this case. On December 10, 2002, a Response to the Examiner's Restriction Requirement was filed. It has been discovered that due to an internal clerical/computer error, the header to that Amendment and Response to Restriction Requirement inadvertently referenced the parent application rather than the serial number and filing date of the subject divisional application. Nevertheless, the header properly identified the Attorney Docket Number for this case (1767-72), the title, and specifically referenced the Office Action dated November 15, 2002. A copy of that Amendment and Response to Restriction Requirement and the undersigned's postcard receipt evidencing its receipt by the U.S. Patent Office on December 10, 2002 are attached.

Although the Response properly identified the Attorney Reference Number, title, and Office Action in response to which the Amendment and Response was being submitted, the December 10, 2002 Response was apparently never matched with the subject application. It

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is unclear whether the paper was placed in the file of the parent application or mis-routed within the U.S. Patent Office.

Because an Amendment and Response to Restriction Requirement was timely filed on December 10, 2002, and properly identified this case by Attorney Docket Number and Title, and referenced the Official Action of November 15, 2002, it is respectfully submitted that applicant should be accorded a response date of December 10, 2002 and this application should not have been abandoned for failing to respond to the Office Action of November 15, 2002.

In the alternative, if the December 10, 2002 submission is considered fatally defective for showing the parent serial number instead of the serial number of the present divisional application, please consider this a Petition to Revive an Unintentionally Abandoned Application and please accept the herewith re-presented Amendment and Response to Restriction Requirement, which has been re-headed to specifically identify this divisional application by serial number, as the required response. Please charge any required fees for withdrawal of the abandonment and/or revival of this application to the undersigned's Deposit Account number 14-1140 under Order No. 1767-72 for which purposes this petition is submitted in duplicate.

If there are any questions regarding this request/petition, please contact the undersigned at the number indicated below.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

Michelle N. Lester

Reg. No. 32,331

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1100 North Glebe Road, 8th Floor
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

NAKAMURA

Atty. Ref.: 1767-72

Serial No. 09/695,043

Group: 1741

Filed: October 25, 2000

Examiner: Mayekar, Koshor

For: DECOMPOSITION APPARATUS OF ORGANIC COMPOUND, DECOMPOSITION
METHOD THEREOF, EXCIMER UV LAMP AND EXCIMER EMISSION APPARATUS

* * * * *

June 3, 2003

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

AMENDMENT AND RESPONSE TO RESTRICTION REQUIREMENT

Responsive to the Official Action dated November 15, 2002, kindly enter the following amendment and remarks.

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June 3, 2003

IN THE CLAIMS

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (original) A decomposition apparatus for decomposing an organic compound fluid such as a gas of an organic compound, a liquid thereof, a gas containing an organic compound, and a liquid containing an organic compound, which comprises:
an excimer lamp emitting UV light for decomposing said organic compound, and
a decomposition container provided with an excimer lamp for decomposing said organic compound in said organic compound fluid.
2. (original) A decomposition apparatus as claimed in Claim 1, wherein two or more decomposition containers each having said excimer lamp are jointed for flowing said fluid in one container to the other container in order.
3. (original) A decomposition apparatus as claimed in Claim 1, wherein said container is equipped with a flow rate buffering material for slowing down a flow rate of said fluid.
4. (original) A decomposition apparatus as claimed in Claim 1, wherein said decomposition container is equipped with a contact part between said fluid and a catalyst gas for promoting decomposition of the organic compound.
5. (original) A decomposition apparatus as claimed in Claim 1, wherein an organic compound to be decomposed selected from fan, dioxin (polychlorinated dibenzo-para-dioxin), PCB (polychlorinated biphenyl), trichloroethylene, tetrachloroethylene, dichloromethane, tetrachloromethane, 1,2-dichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethane, 1,1,1-trichloroethane, 1,3-dichloropropene and a mixture thereof.

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6. (original) A decomposition apparatus as claimed in Claim 1, wherein said excimer lamp comprises:

a discharging vessel made of a dielectric material with excellent permeability of UV light,

an inner tube equipped on the inside of the discharging vessel, a protect tube equipped on the outside of the discharging vessel,

an outer electrode equipped in the position between the protect tube and the discharging vessel,

an inner electrode equipped on the inside of the inner tube,

a filling gas filled up in said discharging vessel, and

a power supply for applying a voltage between said outer electrode and said inner electrode.

7. (original) A decomposition apparatus as claimed in Claim 6, wherein said excimer lamp comprises:

said power supply applying a high frequency voltage from 1 to 20 MHz to a metal container and the inner electrode.

8. (original) A decomposition apparatus as claimed in Claim 1, wherein a wave length of UV light is of 222nm or below.

9. (original) A decomposition apparatus of an organic compound fluid such as a gas of an organic compound, a liquid thereof, a gas containing an organic compound and a liquid containing an organic compound, which comprises:

an excimer emission body equipped with an inner electrode,

a metal container equipped to the outside of said excimer emission body for filling up at least one selected from a liquid of an organic compound and a liquid containing organic compound a power supply for applying a high frequency voltage

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between the inner electrode and the metal container, and

a UV light irradiated from said excimer emission body to said liquid in said metal container allows to generate OH radical and O radical in the liquid, and

the radical cutting some bond of the organic compound so that the organic compound in the liquid is decomposed easily.

10. (original) A decomposition apparatus as claimed in Claim 9, wherein said excimer emission body comprises:

a discharging vessel made of a dielectric material with excellent permeability of UV light,

an inner tube equipped on the inside of said discharging vessel, an inner electrode equipped on the inside of said inner tube, and a filling gas filled up in said discharging vessel.

11. (original) A decomposition apparatus as claimed in Claim 9, wherein said excimer lamp comprises:

said power supply applying a high frequency voltage from 1 to 20 MHz to the metal container and the inner electrode.

12. (original) A decomposition apparatus as claimed in Claim 9, wherein an organic compound is selected from flon, dioxin (polychlorinated dibenzo-para-dioxin), PCB (polychlorinated biphenyl), trichloroethylene, tetrachloroethylene, dichloromethane, tetrachloromethane, 1,2-dichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethane, 1,1,1-trichloroethane, 1,3-dichloropropene and a mixture thereof.

13. (original) A decomposition apparatus as claimed in Claim 9, wherein a wave length of UV light is of 222nm or below.

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14. (currently amended) A decomposition method for decomposing ~~said an~~ organic compound fluid, ~~which is used in said a decomposition apparatus as claimed in Claim 1~~ that comprises an excimer lamp emitting UV light for decomposing said organic compound in said organic compound fluid, which method comprises the steps of:

flowing a organic compound fluid ~~which is selected~~ from a gas of an organic compound, a liquid thereof, a gas containing an organic compound and a liquid containing an organic compound during the emission of UV light which is irradiated from ~~an~~ said excimer lamp, and

decomposing the organic compound in said fluid during ~~its~~ said flowing step.

15. (original) A decomposition method as claimed in Claim 14, wherein said fluid flow slowly at a flow rate buffering material during the emission of UV light.

16. (original) A decomposition method as claimed in Claim 14, wherein said fluid flows slowly at a flow rate buffering material during the emission of UV light.

17. (original) A decomposition method as claimed in Claim 14, wherein an organic compound is selected from flon, dioxin (polychlorinated dibenzo-para-dioxin), PCB (polychlorinated biphenyl), trichloroethylene, tetrachloroethylene, dichloromethane, tetrachloromethane, 1,2-dichloroethane, 1,1-dichloroethane, cis-1,2-dichloroethane, 1,1,1-trichloroethane, 1,3-dichloropropene and a mixture thereof.

18. (original) A decomposition method as claimed in Claim 14, wherein a wave length of UV light is of 222nm or below.

Claims 19-24 (canceled).

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Serial No. 09/695,043

June 3, 2003

REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 1-18 remain pending. Claim 14 has been amended above so as to be presented in independent form and so as to otherwise be in more proper U.S. claim format.

Responsive to the Examiner's Restriction Requirement, Applicant hereby provisionally elects Invention II, claims 14-16, drawn to a method for decomposing an organic compound fluid. This election is made with traverse. Applicant reserves the right to file a divisional application directed to the subject matter of the non-elected claims.

An early and favorable Action on the merits of claims 14-18 is solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By: 

Michelle N. Lester
Reg. No. 32,331

MNL:slj
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Serial No.: 09/132,215
Inventor/s: NAKAMURA

C#/M#: 1767-72
Atty: Michelle N. Lester
Date: Dec. 10, 02

Title: DECOMPOSITION APPARATUS OF ORGANIC
COMPOUND, DECOMPOSITION METHOD
THEREOF, EXCIMER UV LAMP AND EXCIMER
EMISSION APPARATUS

XX Amendment

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\$ Fee (Check) - Non Pre-Bill

\$0.00 Total Fee Enclosed
Other: ADDRESS INDICATION FORM



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Atty Dkt. 1767-72

C# M#

AKAMURA

Group Art Unit: 1741

Serial No. 09/132,215

Examiner: Williams

Filed: August 11, 1998

Date: December 10, 2002

DECOMPOSITION APPARATUS OF ORGANIC COMPOUND, DECOMPOSITION
METHOD THEREOF, EXCIMER UV LAMP AND EXCIMER EMISSION
APPARATUSAssistant Commissioner for Patents
Washington, DC 20231

Sir:

RESPONSE/AMENDMENT/LETTER

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☒ **Correspondence Address Indication Form Attached.****Fees are attached as calculated below:**

Total effective claims after amendment 18 minus highest number
previously paid for 20 (at least 20) = 0 x \$ 18.00 \$ 0.00

Independent claims after amendment 3 minus highest number
previously paid for 3 (at least 3) = 0 x \$ 84.00 \$ 0.00

If proper multiple dependent claims now added for first time, add \$280.00 (ignore improper) \$ 0.00

Petition is hereby made to extend the current due date so as to cover the filing date of this
paper and attachment(s) (\$110.00/1 month; \$400.00/2 months; \$920.00/3 months) \$ 0.00

Terminal disclaimer enclosed, add \$ 110.00 \$ 0.00

☐ First/second submission after Final Rejection pursuant to 37 CFR 1.129(a) (\$740.00) \$ 0.00

☐ Please enter the previously unentered, filed☐ Submission attached**Subtotal \$ 0.00**

If "small entity," then enter half (1/2) of subtotal and subtract -\$ 0.00

☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee (\$180.00) \$ 0.00

Assignment Recording Fee (\$40.00) \$ 0.00

Other: 0.00

TOTAL FEE ENCLOSED \$ 0.00

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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NIXON & VANDERHYE P.C.
By Atty: Michelle N. Lester, Reg. No. 32,331

Signature: 

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**CORRESPONDENCE
ADDRESS
INDICATION FORM****Address to:**

Assistant Commissioner for Patents
Box CN
Washington, DC 20231

Direct all correspondence to:

**Customer Number:****23117**

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Type Customer Number here



Request for Customer Number (PTO/SB/125) submitted herewith.

in the following listed application(s) or patent(s):

Patent Number (if appropriate)	Application Number	Patent Date (if appropriate)	U.S. Filing Date
	09/132,215		August 11, 1998

Typed or Printed Name	Michelle N. Lester	(check one)
Signature		<input type="checkbox"/> Applicant or Patentee
Date	December 10, 2002	<input type="checkbox"/> Assignee of record of the entire interest. Statement under 37 C.F.R. § 3.73(b) is enclosed. (Form PTO/SB/86)
Address of signer:	1100 North Glebe Road, 8 th Floor Arlington, VA 22202	<input checked="" type="checkbox"/> Attorney or Agent of record
		32,331 (Reg. No.)

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.

Total of 1 forms are submitted.

San Hour Statement: This form is estimated to take 0.2 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS: SEND TO: Assistant Commissioner of Patents, Box CN, Washington, DC 20231.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

NAKAMURA

Atty. Ref.: 1767-72

Serial No. 09/132,215

Group: 1741

Filed: August 11, 1998

Examiner: Williams

For: DECOMPOSITION APPARATUS OF ORGANIC COMPOUND, DECOMPOSITION
METHOD THEREOF, EXCIMER UV LAMP AND EXCIMER EMISSION APPARATUS

* * * * *

December 10, 2002

Assistant Commissioner for Patents
Washington, DC 20231

Sir:

AMENDMENT AND RESPONSE TO RESTRICTION REQUIREMENT

Responsive to the Official Action dated November 15, 2002, kindly enter the following amendment and remarks.

IN THE CLAIMS

Please substitute the following amended claim for corresponding claim previously presented. A copy of the amended claim showing current revisions is attached.

14. (Amended) A decomposition method for decomposing an organic compound fluid, in a decomposition apparatus that comprises an excimer lamp emitting UV light for decomposing said organic compound in said organic compound fluid, which method comprises the steps of:

flowing a organic compound fluid selected from a gas of an organic compound, a liquid thereof, a gas containing an organic compound and a liquid containing an organic compound during the emission of UV light which is irradiated from said excimer lamp, and

NAKAMURASerial No. **09/132,215**

decomposing the organic compound in said fluid during said flowing step.

REMARKS

Reconsideration and allowance in view of the foregoing amendment and the following remarks are respectfully requested.

Claims 1-18 remain pending. Claim 14 has been amended above so as to be presented in independent form and so as to otherwise be in more proper U.S. claim format.

Responsive to the Examiner's Restriction Requirement, Applicant hereby provisionally elects Invention II, claims 14-16, drawn to a method for decomposing an organic compound fluid. This election is made with traverse. Applicant reserves the right to file a divisional application directed to the subject matter of the non-elected claims.

An early and favorable Action on the merits of claims 14-18 is solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.By: 

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NAKAMURA
Serial No. **09/132,215**

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning at page , line :

IN THE CLAIMS

Please substitute the following amended claim(s) for corresponding claim(s) previously presented. A copy of the amended claim(s) showing current revisions is attached.

14. (Amended) A decomposition method for decomposing [said] an organic compound fluid, [which is used] in [said] a decomposition apparatus [as claimed in Claim 1] that comprises an excimer lamp emitting UV light for decomposing said organic compound in said organic compound fluid, which method comprises the steps of:

flowing a organic compound fluid [which is] selected from a gas of an organic compound, a liquid thereof, a gas containing an organic compound and a liquid containing an organic compound during the emission of UV light which is irradiated from [an] said excimer lamp, and

decomposing the organic compound in said fluid during [its] said flowing step.